1. Indicate the necessary reagents for the following transformations. (5 points)

\[ \text{Cyclohexene} \xrightarrow{1)} \xrightarrow{2)} \text{Cyclohexylmethanol} \]

2. Predict the major product of the reaction below. Include any relevant stereochemistry. (problem 8-13a, 3 points)

\[ \text{Cyclohexene} \xrightarrow{1) BH_3\cdot THF} \xrightarrow{2) H_2O_2, OH^-} \]

3. Circle the major product of the following reaction. (2 points)

\[ \text{Ph-CH=CH-CH}_3 \xrightarrow{Br_2, H_2O} \]

a) [Diagram of a compound with two bromine substituents and a methyl group]  
b) [Diagram of a compound with three bromine substituents and a methyl group]  
c) [Diagram of a compound with a hydroxyl group and two methyl groups]  
d) [Diagram of a compound with two hydroxyl groups and two methyl groups]